

From: [Jon Rauscher](#)
To: [Stephen Tzhone](#)
Cc: [John Meyer](#); [Carlos Sanchez](#); [Donald Williams](#); [Gloria-Small Moran](#); [Casey Lockett](#)
Subject: Re: Arkwood Site
Date: 05/17/2012 04:36 PM

Question 1:

- The table does present the current Preliminary Remediation Goals (PRG) for the three chemicals.

Question 2:

- The pentachlorophenol cleanup level of 300 mg/kg is essentially equivalent to the PRG of 270 mg/kg. Risk based levels and risk estimates generally have a single significant digit of precision so PRG of 270 mg/kg could be rounded to 300 mg/kg. Therefore, the 300 mg/kg cleanup would have resulted in a cleanup within the 1E-4 to 1E-6 lifetime excess cancer risk range.
- The benzo(a)pyrene (B(a)P) cleanup level of 6 mg/kg of B(a)P equivalents would have resulted in a cleanup within the 1E-4 to 1E-6 lifetime excess cancer risk range.
- The dioxin cleanup level of 20 ug/kg of 2,3,7,8-TCDD equivalents could have resulted in a cleanup that exceeds the non-cancer PRG of 0.665 ug/kg. The acceptability of current cleanup level cannot be easily assessed without sampling data post remedial construction for dioxins. The cleanup of PCP and B(a)P could have resulted in dioxin levels less than 0.665 ug/kg 2,3,7,8-TCDD equivalents.

Question 3:

- Six inches of clean topsoil can be sufficient. Procedures would need to be in place to ensure the long-term viability of the topsoil or cover. The reuse provisions on the site will have to account for the 6 inch soil depth if excavation of soil is necessary for redevelopment.

▼ [Stephen Tzhone---05/14/2012 05:30:39 PM---Hi Jon, John, I'm researching the technical foundation for two issues \(i.e.: ready for reuse and par](#)

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Cc: Carlos Sanchez/R6/USEPA/US@EPA, Donald Williams/R6/USEPA/US@EPA, Gloria-Small Moran/R6/USEPA/US@EPA, Casey Lockett/R6/USEPA/US@EPA
Date: 05/14/2012 05:30 PM
Subject: Re: Arkwood Site

Hi Jon, John,

I'm researching the technical foundation for two issues (i.e.: ready for reuse and partial delisting) that have been controversial between the community and PRPs.

In my research, I reviewed a draft update (below) which states:

Chemical	PRG (10-6 or HQ = 1)	10-4 Level for Cancer PRG	Basis
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PCP	2.7 mg/kg	270 mg/kg	Cancer
B(a)P	0.21 mg/kg	21 mg/kg	Cancer
2,3,7,8-TCDD	0.6 µg/kg	--	Non-cancer

'It seems under the latest industrial standards (PRGs) the soils remedy part can be deleted per the Risk Assessors...' and '...the entire site is covered with 6 inches of clean soil'.

Question 1: Does this table reflect the most current EPA industrial risk goals for soil?

Question 2: The 1990 ROD cleanup levels were: PCP 300 mg/kg, B(a)P 6.0 mg/kg, and 2,3,7,8-TCDD 20 µg/kg. When comparing these levels to the table, only B(a)P is within the risk range... was there a rationale for the others to be considered acceptable?

Question 3: How are soil exposure pathways eliminated in an industrial risk scenario, i.e. would 6 inches of clean topsoil suffice?

Thanks,

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▼ Shawn Ghose---05/14/2012 01:20:13 PM---The message is ready to be sent with the following file or link attachments: Partial Delisting2 cr

From: Shawn Ghose/R6/USEPA/US
 To: Stephen Tzhone/R6/USEPA/US@EPA
 Date: 05/14/2012 01:20 PM
 Subject: Emailing: Partial Delisting2 criteria.docx

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